

## ACH 2779 US

## AMENDED CLAIMS

1. (previously presented) A process for activating a catalyst composition comprising at least one hydrogenation metal component of Group VI and/or Group VIII of the Periodic Table, and an S-containing organic additive, wherein the catalyst is contacted with hydrogen at a temperature between room temperature and about 600°C, and prior to or during the contacting with hydrogen the catalyst is contacted with an organic liquid, wherein the amount of organic liquid contacted with the catalyst is about 20-500% of the catalyst pore volume which can be filled with the liquid under the conditions at which contact occurs.
2. (original) The process of claim 1 wherein the contacting with the organic liquid takes place prior to the contacting with hydrogen.
3. (previously presented) The process of claim 1 wherein the organic liquid is a hydrocarbon with a boiling point range of about 150-500°C.
4. (previously presented) The process of claim 3 wherein the organic liquid is selected from the group consisting of white oil, gasoline, diesel, gas oil, and mineral lube oil.
5. (original) The process of claim 1 wherein the organic liquid comprises less than about 12 wt.% of oxygen.
6. (original) The process of claim 1 wherein the organic liquid comprises less than about 8 wt.% of oxygen.

7. (original) The process of claim 1 wherein the organic liquid comprises less than about 5 wt.% of oxygen.
8. (original) The process of claim 1 wherein the organic liquid comprises less than about 2 wt.% of oxygen.
9. (original) The process of claim 1 wherein the organic liquid comprises less than about 0.5 wt.% of oxygen.
10. (original) The process of claim 1 wherein the organic liquid has an iodine number of about 50 or less.
11. (original) The process of claim 1 wherein the organic liquid has an iodine number of about 30 or less.
12. (original) The process of claim 1 wherein the organic liquid contains less than about 10 wt.% of sulfur.
13. (original) The process of claim 1 wherein the organic liquid contains less than about 5 wt.% of sulfur.
14. (canceled)
15. (original) The process of claim 1 wherein the contacting of the catalyst with hydrogen takes place at a temperature of about 100-450°C.
16. (original) The process of claim 1 wherein the S-containing organic additive comprises at least one carbon atom and at least one hydrogen atom.
17. (original) The process of claim 1 wherein the S-containing organic additive is an organic compound comprising a mercapto-group.

18. (original) The process of claim 17 wherein the S-containing organic additive is a mercapto acid represented by the general formula HS-R1-COOR, wherein R1 stands for a divalent hydrocarbon group with 1-about 10 carbon atoms and R stands for a hydrogen atom, an alkali metal, an alkaline earth metal, ammonium, or a linear or branched alkyl group having 1 to about 10 carbon atoms.
19. (original) The process of claim 1 wherein the S-containing organic additive comprises about 0.01-2.5 moles of additive per mole of hydrogenation metals present in the catalyst.
20. (original) The process of claim 1 wherein the S-containing organic additive is incorporated into the catalyst composition prior to, subsequent to, or simultaneously with the incorporation of the hydrogenation metal components.
21. (original) The process of claim 1 wherein the catalyst has a metal content in the range of about 0.1 to about 50 wt.% calculated as oxides on the dry weight of the catalyst not containing the organic additive.
22. (previously presented) The process of claim 1 wherein the Group VI metal is present in an amount of about 5-40 wt.%, calculated as trioxide.
23. (original) The process of claim 1 wherein the Group VIII metal is present in an amount of about 1- 10 wt.%, calculated as monoxide.
24. (previously presented) The process of claim 1 wherein the group VI metals are Mo and W, and the group VIII metals are Co and/or Ni.
25. (original) The process of claim 24 wherein the amount of sulfur incorporated into the catalyst by way of the S-containing organic additive

is selected to correspond to about 50-300% of the stoichiometric sulfur quantity necessary to convert the hydrogenation metals into  $\text{Co}_9\text{S}_8$ ,  $\text{MoS}_2$ ,  $\text{WS}_2$ , and/or  $\text{Ni}_3\text{S}_2$ , respectively.

26. (previously presented) The process of claim 36 wherein both the contacting with the organic liquid and the contacting with hydrogen are carried out *ex situ*.
27. (original) The process of claim 1 wherein less than about 10% of the stoichiometric sulfur quantity necessary to convert the hydrogenation metals into their sulfides is provided by way of S-containing compound added to the hydrogen other than sulfur originating with the S-containing organic additive.
28. (original) The process of claim 1 wherein less than about 5% of the stoichiometric sulfur quantity necessary to convert the hydrogenation metals into their sulfides is provided by way of S-containing compound added to the hydrogen other than sulfur originating with the S-containing organic additive.
29. (original) The process of claim 1 wherein substantially none of the stoichiometric sulfur quantity necessary to convert the hydrogenation metals into their sulfides is provided by way of S-containing compound added to the hydrogen other than sulfur originating with the S-containing organic additive.
30. (previously presented) The process according to claim 26 wherein the catalyst is passivated after the *ex situ* hydrogen treatment.
31. (currently amended) A catalyst obtained by the process of claim ~~1~~ composition comprising at least one hydrogenation metal component of

Group VI and/or Group VIII of the Periodic Table, and an S-containing organic additive, wherein the catalyst is contacted with hydrogen at a temperature between room temperature and about 600°C, and prior to or during the contacting with hydrogen the catalyst is activated by contacting it with an organic liquid, wherein the amount of organic liquid contacted with the catalyst is about 20-500% of the catalyst pore volume which can be filled with the liquid under the conditions at which contact occurs.

32. (cancelled)
33. (cancelled)
34. (previously presented) A process for activating a catalyst composition comprising at least one hydrogenation metal component of Group VI and/or Group VIII of the Periodic Table, and an S-containing organic additive, wherein the catalyst is contacted with hydrogen at a temperature between room temperature and about 600°C, and prior to or during the contacting with hydrogen the catalyst is contacted with an organic liquid, wherein the organic liquid comprises less than about 12 wt.% of oxygen.
35. (previously presented) A process for activating a catalyst composition comprising at least one hydrogenation metal component of Group VI and/or Group VIII of the Periodic Table, and an S-containing organic additive, wherein the catalyst is contacted with hydrogen at a temperature between room temperature and about 600°C, and prior to or during the contacting with hydrogen the catalyst is contacted with an organic liquid, wherein the organic liquid has an iodine number of about 50 or less.
36. (previously presented) The process of claim 1, wherein the contacting with the organic liquid is carried out *ex situ*.